

WE CLAIM:

1. A system for stacking platelets, comprising in combination:  
a slotted file; and  
a plurality of platelets which fit into the slotted file.
2. The system of Claim 1, wherein the slotted file has at least three walls.
3. The system of Claim 2, wherein the at least three walls are composed of silicon.
4. The system of Claim 2, wherein the slotted file has at least two side walls and at least one back wall.
5. The system of Claim 4, wherein the at least two side walls have been etched with a plurality of grooves.
6. The system of Claim 5, wherein a depth of the plurality of grooves is sufficient to hold each of the plurality of platelets.
7. The system of Claim 5, wherein a spacing between the plurality of grooves is determined based on a platelet thickness.

8. The system of Claim 5, wherein the spacing between the plurality of grooves is determined based on a number of platelets in a completed cube.
9. The system of Claim 5, wherein the spacing between the plurality of grooves is determined based on an allocated space limitation.
10. The system of Claim 4, wherein the at least one back wall is connected to an end of each of the at least two side walls to form a "U" shape.
11. The system of Claim 10, wherein the plurality of grooves on the at least two side walls face directly across from each other.
12. The system of Claim 1, wherein each of the plurality of platelets is comprised of a semiconductor chip placed into a chip carrier.
13. The system of Claim 12, wherein the chip carrier has a floor and a frame.
14. The system of Claim 13, wherein the floor and the frame are composed of a ceramic material.
15. The system of Claim 13, wherein the floor protrudes past at least two edges of the frame forming flanges.

16. The system of Claim 15, wherein the flanges fit into the plurality of grooves in the at least two side walls of the slotted file.

17. The system of Claim 13, wherein the floor has a plurality of electrodes.

18. The system of Claim 17, wherein the semiconductor chip is placed face down on the floor contacting the plurality of electrodes.

19. The system of Claim 1, wherein epoxy is used to seal a completed cube.

20. A method for stacking platelets, comprising in combination:

etching grooves into a wall material, wherein at least two side walls with a plurality of grooves and at least one back wall without the grooves is formed;

connecting the at least two side walls and the at least one back wall to form a  
5 slotted file; and

inserting a plurality of platelets into the slotted file forming a completed cube.

21. The method of Claim 20, further comprising immersing the completed cube in epoxy.

22. The method of Claim 20, wherein the wall material is silicon.

23. The method of Claim 20, wherein a depth of the plurality of grooves is sufficient to hold each of the plurality of platelets.

24. The method of Claim 20, wherein a spacing between the plurality of grooves is determined based on a platelet thickness.

25. The method of Claim 20, wherein the spacing between the plurality of grooves is determined based on a number of platelets in the completed cube.

26. The method of Claim 20, wherein the spacing between the plurality of grooves is determined based on an allocated space limitation.

27. The method of Claim 20, wherein each of the plurality of platelets has at least two flanges that fit into the plurality of grooves.

28. The method of Claim 20, wherein each of the plurality of platelets is comprised of a semiconductor chip placed into a chip carrier.

29. A system for stacking platelets, comprising in combination:

a slotted file consisting of at least two side walls and at least one back wall,  
wherein the at least two side walls and the at least one back wall are composed of silicon,

wherein the at least two side walls have been etched with a plurality of grooves, wherein  
5 the at least one back wall is connected to an end of each of the at least two side walls to  
form a "U" shape, and wherein the plurality of grooves on the at least two side walls face  
directly across from each other; and

a plurality of platelets, wherein each of the plurality of platelets is comprised of a  
semiconductor chip placed into a chip carrier, wherein the chip carrier has a floor and a  
10 frame, wherein the floor and the frame are composed of a ceramic material, wherein the  
floor protrudes past at least two edges of the frame forming flanges, wherein the flanges  
fit into the plurality of grooves in the at least two side walls of the slotted file, and  
wherein epoxy is used to seal a completed cube.

11/22/02 10:00 AM